Reflections on Water: An Interview with Margaret Catley-Carlson

Margaret Catley-Carlson

2005-08

In an effort to demystify the water "problem," IDRC Bulletin speaks with IDRC governor Margaret Catley-Carlson who has been working in the area of water for 20 years, most recently as Chair of the Global Water Partnership and member of the World Water Commission.

What do you think are the most pressing water-related problems that we are facing today?

People are quite perplexed by the water problem. Has it stopped raining? Why do we suddenly have a water problem?

The major issue is that global populations have tripled since 1950, and water demand has gone up seven-fold. As we develop, we all use more water. When we buy a car, for instance—the industrial processes to put that car together have required a great deal of water. When we eat chicken—chicken requires about three times as much water as cereal or beans because, of course, the chicken eats cereal, which itself requires water to grow. So while it takes about a tonne of water to grow a kilo of cereal, it takes about five tonnes of water to grow a kilo of chicken. All these things have an exponential impact, and so the pressure on water goes up with development, with population growth.

The demand on water keeps increasing, and the amount of water that's available is always the same. And so, particularly in areas where water supply was always under stress, or in areas where a lot of groundwater is being pulled out, increasing population is causing acute pressure on water.

What are the toughest challenges that groups like the Global Water Partnership face when working in the area of water management?

The major challenge is to make governments aware that they have to manage their water resources.

Water has been here since the beginning of human time, and there's always been enough for us. Water use patterns have developed over a century, if not a millennium. The idea that the world may have changed so much in the last 50 years, that those habits—having water free, being able to use as much as you want of it, being able to pull it out of the ground—that all these things that have been done for as long as people have lived in those areas, that these are no longer sustainable, is an extremely difficult concept to get across.

It's a great shock to people. They start saying, "But it's free, it's there." Yes, but it has to be managed now because of the differences in population and the pressures on water. The single biggest challenge isn't that the science isn't there, isn't that we couldn't devise better ways of managing water—it's the extreme reluctance of governments, of states, of communities to take water management as a serious issue.

How have practices or approaches regarding water changed in the two decades that you have worked in water management?

Oh, they're changing a lot. As countries come up against a wall they make really big changes. China has a new water law and very new water practices. It has switched its priority from agriculture to making sure the urban areas are covered, and it will probably take on some huge infrastructure projects to move water from the south to the north.

Malaysia has done a complete governmental reorganization around water. Thailand has changed its agricultural water prospects. Throughout Africa, countries are starting to look at water as a way of helping to get out of poverty. There's a growing awareness in the world of the role that water plays. (Read the fact sheet After the Water Wars: The Search for Common Ground).

How can sound water management policies help to reduce poverty?

There are two ways in which water and poverty are linked – availability and quality.

Most poverty is concentrated in rural areas of countries with very erratic and irregular water patterns. There may be a high concentration of rain for a few days a year, but for the rest of the year there isn't any water. Until that is managed through some kind of infrastructure, poverty in rural areas will, in most cases, simply not be alleviated. Whether it means irrigation, the ability to store water, making better use of water for the crops, or protecting from floods, you cannot improve the situations of direst poverty in rural areas until you have better water management.

Second problem: the quality of drinking water and sanitation. The linkages there to poverty are absolutely huge. The UN Millennium Task Force found that African women spend 40 billion hours a year getting water. Well imagine what the poverty impact would be if those women could put those 40 billion hours to productive use—raising their families, getting more schooling, keeping their girls in school.

There is also the fact that waterborne diseases are still by far the largest killer, disabler and sickness-causing agents in the developing world. If you add the hours that are lost through bad health on top of the effort that is involved in collecting drinking water, you'll find that you've really got a single cause of poverty—water, its availability and its quality. If that could be instantly changed you'd have a huge key to reducing poverty in some very difficult areas.

What would you like to see happen on the water agenda in the next 10, 20 years?

What has to happen is something as basic as increasing water awareness. In many countries this means creating a structure to manage water. Most countries, including Canada, don't have ministries of water. There are 17 different ministries in Canada that can make water law and water regulations. Canada is a well-governed, well-run country, and so on most levels these ministries get together and talk to one another so that you no longer have dams going in without some discussion of what their impact would be downstream, on the environment, on agriculture. In many countries those discussions simply don't take place.

(In some countries) we still have vertical silos of policies in agriculture, industry, etc. governing water use without any integrated water management. What we need to do is bring together the various actors, whether they're government departments, industries, whatever, to sit around a table and talk about water use in its many dimensions—the implications and impact that one sector's use has on other sectors. We need to define what can be done about it, what should be the agenda of change, and in which direction countries need to go.

Do you ever think that there will be an equivalent to the Kyoto Protocol for water?

There couldn't be. Water is local. Air is global, but water is local. Most communities in the world do not pay a sufficient amount to keep the infrastructure for water in good shape. And so whether and how water is delivered, whether it is interfered with by lack of good sanitation, for example, all of these are local. There's a small global affect, but the impact is local.

When you look at Kyoto you have atmospheric effects that affect all countries, you have a possible effect on the ozone layer, you have a possible effect on climate change. The effect is local with water, it's quite different than air.

Research into water management has been going on for decades. Do we still need to be conducting research?

Certainly enough research has been done to be getting on with the changes that are needed, but you always need research.

You need research, for example, on better forms of sanitation in urban areas. You need research on what the barriers are to adopting better sanitation, into which sewage systems are working better and why.

You need research into drinking water distribution systems—how these fit with the sociology and the anthropology of places. You need continuing research into water flows and flooding—how do you alleviate flooding? How do you set up communication patterns that will give people the distant early warning of floods?

What are long-term drought indicators? What are the crops that will best withstand drought? How do you breed for drought tolerance, whether through conventional breeding or through genetic modification?

It just goes on and on and on and on, so there’s an awful lot of research needed. But there’s certainly enough to be getting on with change and reform now without waiting for further research.